TRAFFIC ENGINEERING

OFFICIAL PUBLICATION OF THE INSTITUTE OF TRAFFIC ENGINEERS

COVER: Corrugated white concrete traffic markers outline the lanes on U. S. 46 in New Jersey. For additional information on these markers see page 117 (Photo courtesy R. H. Smith).

May We Offer . . .

New Frontiers	**Norman Damon**	**99**
Mirrored Roads	**Harry Neal**	**104**
Near Side—Far Side	**Chas. Walker**	**106**
The Stop Light	**Stanley Baitz**	**110**
Odd Accidents	**Paul Jones**	**112**
New Jersey Plans	**Herbert Keegan**	**114**
Reference Notes		**122**
ITE Activities		**131**
Personalities		**141**

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Frankly Speaking

THAT 1947 has been a successful year for the *Institute of Traffic Engineers* is evidenced by the progress made since January.

The acquisition of an executive secretary and the establishment of our *national* headquarters have done much in coordinating both the internal and external affairs of the *Institute*. The large attendance and instructive program of the annual meeting reflect credit and served as a good index to the progress of the organization.

These accomplishments are in themselves milestones designating great achievement for a comparatively youthful group. However, the greatest contribution to our progress has been in the expansion of the local sections. These regional groups stimulate interest in the profession and add strength to the national organization.

Many of the *Institute's* sections hold monthly meetings, except during the summer. These gatherings are usually semi-technical in nature and afford an opportunity for informal exchange of information among traffic engineers. The value of these section meetings can not be over-estimated. It is hoped that additional sections will be organized during the coming year.

The *Institute's* progress of the past year should help to stimulate a determination for greater achievement next year.

Robert O. Swain

Editor

New Frontiers for the Trained Fleet Supervisor

by NORMAN DAMON, *Affil. ITE*

THOSE of us who have been privileged to play a part in organizing and advancing the fleet supervisor training program believe it is one of the most important and far-reaching developments in motor transportation. For today motor transportation is a huge enterprise contributing immeasurably to the welfare and economy of the nation. It embraces some five million five hundred thousand trucks, and at least three million five hundred thousand drivers professionally engaged in driving these vehicles. There are probably more than seven million who drive trucks at least part of the time.

Program Continue to Grow

We can take great pride in the progress made from seven courses three years ago, twenty-nine courses last year, and thirty-three courses this year. Thirty-four large universities are this year sponsoring these courses. To date more than 2,000 supervisors, having under their supervision 320,000 trucks and more than 400,000 drivers, have participated in these courses. They are getting results. For example, one bus company operating a million miles a month was able within a year, by applying the principles drawn from this standard course, to cut accident costs from $46,000 to $8,000 a month.

This is no isolated case. Numerous others could be cited. I think one of the most striking is that of a large baking company with branches in various cities. The branch plants each consist of a bakery and cake division. In one city the manager of one division has personally attended a fleet training course, along with his supervisors. His division has the best fleet safety record of all the company branches. Next office to him is the manager of the other division, who claims he sees no need for special training in fleet supervision. His division has the worst accident experience in the entire company. No experiment utilizing scientific controls could better illustrate the efficiency of fleet supervisor instruction.

Or to take an example relating to the maintenance portion of the program: A large transportation firm in Iowa, operating approximately 110 tractor semi-trailer gasoline transports, had such a bad maintenance problem that some 40 per cent of their units were continually in the shop. They decided to develop a system of practices along the lines of the preventive maintenance procedure recommended in the standard course, and spent about six months getting their equipment back into shape and on the road. In the first eight months after their preventive maintenance program was fully in operation, they had not a *single* breakdown. Instead of hoping—as in the past—that they could get "one more trip" from a particular unit, they eliminated the chance of a breakdown by proper inspection and preventive maintenance technique.

Training Has Numerous Objectives

Different people have different reasons for being interested in the ob-

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jectives of this training program. Many are interested in the possibilities of lower maintenance costs; others, in more efficient road operations; still others, in building better relations with the customer and the public. All of us, without exception, are of course vitally concerned in curbing traffic accidents. No one knows better than fleet executives that safety pays off—not only from the humanitarian standpoint but in dollars and cents. It is an immensely gratifying thought that the by-product of good management techniques and cost-reducing methods can be the definite lowering of the accident toll on the highways.

Because of all this, I hope that the success of the annual fleet-supervisor course will lead to the establishment by the University of Wisconsin of an Institute of Public Safety. Utilizing the university's magnificent training and research facilities, the Institute would fill a long-felt need and provide the citizens of Wisconsin with the most advanced education and training available in the field of traffic control.

Great Frontier of Opportunity

Motor transportation in America still represents one of the great frontiers of business opportunity. Even the smallest beginner may aspire to the management and ownership of a great fleet, provided he does a better job of transportation than the other fellow.

With each passing year the motor truck has become an increasingly important factor in the national economy. Thirty years ago, for example, less than 2 per cent of the nation's livestock was hauled to market by truck. In 1945 nearly 67 per cent of all livestock tonnage moving to the stockyards was rubber-borne. Similarly, some 70 per cent of our poultry and 65 per cent of our egg crop go to market by truck. In fact, the first movement of substantially every ton of agricultural production is over the highways, and a large percentage of these food products continue direct to market or to consumers by motor transport.

Glancing at the local picture, we find that the role of highway transportation in Wisconsin is, if anything, even more impressive. One hundred per cent of the milk, eggs, fruit and vegetables, hay and tobacco is hauled to primary markets by truck. So is 91 per cent of the butter, 90 per cent of the live poultry and 71 per cent of the livestock. But that's not all. Ninety-nine per cent of the pulpwood moves to shipping points by motor vehicle. Ninety-eight per cent of the lumber moves from the woods by truck and truck combinations, and 50 per cent of the board lumber goes to retailers the same way. In recent years, Wisconsin has also become a major center of automobile manufacturing, and 42.5 per cent of the vehicles are transported by highway. And finally, take that highly prized Wisconsin product, known for its excellence throughout the nation—its famous beer. About 64 per cent of that is shipped by truck, too.

Highway Transportation Grows

Highway transportation has also become the most important method of transporting passengers in the United States, from the standpoint of persons carried, miles traveled and dollars spent. Between the years 1941 and 1945 bus transportation almost doubled, with the number of revenue passengers carried on local and intercity routes soaring from 4,924,000,000 to 9,742,000,000.

In the field of education, more than four million American children are daily transported to and from school in more than 80,000 school buses. This highly developed transportation

system alone offers a splendid opportunity for the application of the skills covered in fleet supervisor training courses. In helping to lower the cost of school bus transportation; in extending the availability of an education to all children; and in providing them with safe and efficient conveyance, there is an unusual opportunity for public service.

In short, the economic and social benefits, the contributions to the envied American standard of living, that result from our modern highway transport are simply calculation. It has stimulated the phenomenal growth of our cities. At the same time, it has promoted the expansion of suburban development and the establishment of mills and factories in rural sections. Market areas have been tremendously widened, thereby making possible larger and cheaper merchandising units.

Served Only by Motor Vehicle

Motor transportation has, in effect, put the smallest town and the remotest hamlet right on Main Street. In fact, there are no less than 54,000 towns in America—558 of them right here in your own state—which are not located on railroads and are served exclusively by motor vehicles.

I would be remiss if, in passing, I did not pay tribute to the magnificent work done by our great fleets of rubber-borne transportation in the late war. It was a staggering job, meritoriously performed in the face of every conceivable kind of obstacle.

Fleet operators have built up a reservoir of good will. No operator can afford to let that high regard lapse into forgetfulness. So long as the owners of trucks, buses and passenger cars share highways provided through their combined taxes, there rests on all users of the roads and especially on commercial vehicle operators the imperative necessity to bear always in mind the rights and privileges of other users.

Recent registration data shows that 27,259,921 passenger cars and 5,696,133 trucks were registered in the United States during the first six months of 1947. These January-June totals exceeded the corresponding period of 1946 by nine per cent for passenger cars and 15.2 per cent for trucks.

I want to stress that in the provision of highway plant, as well as in the facilitation of traffic flow, motor vehicles recognize no political boundary lines The problems of the entire state of Wisconsin or of the Madison or Milwaukee metropolitan areas, for example, are the common problems of Minnesota, Michigan and Illinois. It is highly essential that consideration be given to highway needs and to traffic safety, on this basis, with full coordination of planning and program by the officials of these state and local government agencies.

Improvements Under Way

One of the most striking evidences of a great future for motor transportation is the fact that the Congress has stepped up highway federal-aid to $500 million annually. Under this program, there will be built by the states a nation-wide network of 40,000 miles of most important highways, incorporating the highest modern standards of safety and efficiency. Attention will be given to rehabilitating state highway systems, to secondary road improvements, and to city traffic problems. For the first time, a fully integrated highway improvement program is under way. It doesn't

require a great deal of vision to realize what a tremendous boost to industry and commerce—and to motor transport in particular—this vast new development of superior roads will be.

New peacetime needs for food, shelter and clothing make it imperative to keep every piece of equipment rolling with maximum efficiency. The guiding thought of every fleet executive must be that a lucrative share of the current and future volume of transport business can be held only through superior service—safe, efficient and at the lowest possible cost. Trained management—and trained drivers—will be a competitive advantage of cardinal importance.

Leaders Have Obligations

Upon the larger operators in the commercial vehicle group there falls the additional obligation of leadership in keeping the public informed about the indispensable services of motor transportation; of keeping the public impressed with the safety and courtesy of truck and bus drivers. The truck driver has fully earned the title of gentleman of the highway. But remember that no title of merit, whether in business, politics or sports, can be retained without a constant effort to live up to it.

Operating cost ratios, now higher than ever before, impose another kind of responsibility—actually the basic responsibility of survival. A series of bad accidents—or it may be a single bad accident—can well spell the difference between operation in the red or in the black. The difference can be measured in immediate out-of-pocket costs for an accident—and for higher insurance. It can likewise be measured by an analysis of maintenance cost records.

And finally, it can be measured in terms of public attitude—public good will or ill will expressed in restrictive laws, punitive taxation and arbitrary legislation. In a single state, for example, serious adverse truck legislation came near passing for two reasons: (1) the driver of a big truck passed the Governor of the state at high speed and crowded him off the road and (2) because a truck at night forced a car full of prominent club women into the ditch, seriously crippling two of them.

Story Illustrates Point

Let me illustrate further with what I think is an appropriate story entitled, "Most Anybody May Be Somebody."

> "*More than once* upon a time there was *a great big man* and *a tiny little man.* The *great big man* was a fleet driver—he was operating 100 H.P. and was turreted in steel and shatterproof glass. The *tiny little man* was a pedestrian—he was operating 2 feet power and was unarmed and unarmored. The *great big man* blasted his horn and stepped on the gas. The *tiny little man* gasped for breath and leaped for his life.
>
> "The next day the bailiff called, "Order in the Court!—and the *great big man* and the *tiny little man* met again. The *great big man* was the DEFENDANT—the *tiny little man* was THE JUDGE!"

Again I repeat: Trained supervisors, well selected and well trained drivers —or their lack—can make or break commercial vehicle transportation.

We know from the records that driver error is responsible for 85-90 per cent of all accidents. One supervisor for a large bus company analyzed his company's records for 15 years and classified driver errors into 13 basic cases. Then he went to work on his drivers to see that they corrected those errors. The trouble he took paid rich dividends in improved operation.

The challenge to fleet supervisors completing these courses is not only

San Francisco, California:

Bids for 359 electric trackless trolleys, 55 streamlined streetcars and 98 gas and diesel buses will be asked shortly by James H. Turner, manager of public utilities. The go-ahead on this huge transit modernization plan was given by the voters at the recent election. In anticipation of a favorable vote, priorities were secured several months ago on these vehicles.

to insure successful operation of their own fleets but to seek ways and means of spreading the know-how all along the line until even the smallest operator comprehends how to do a better job than he is doing now.

Specifically, here are a few areas of activity in which fleet supervisors can make an eminently worthwhile contribution:

First, strive to create a proper attitude throughout the organization. We know that attitude toward accidents will determine what kind of a record a fleet will have. Accidents are the result of attitudes.

Second, only effective supervision can develop *satisfied* as well as *satisfactory* drivers and personnel. In one of the industry trade papers that came across my desk the other day there was an excellent piece on training salesmen. In it the writer expounded the major points of selection and training but forgot to nail down the most important of all—supervision.

Third, doing at least one specific thing in the fleet is an important start. This may mean doing like the bus supervisor I mentioned earlier and analyzing the fleet accident records to see what bad habits drivers may have developed and then setting about to eliminate them.

Fourth, during spare time why not put some influence behind the high school driver course in the community if there is one? If not, why not help get one started? Remember that many of the high school drivers of today will be the commercial vehicle operators of tomorrow.

Fifth, if drivers haven't already had first aid training, why not team up with the Red Cross and ask them to provide an instructor? Then continue working with the Red Cross on establishing highway emergency first aid stations and mobile first aid stations.

Sixth, drivers can help themselves and all other drivers by reporting to their supervisors, the automobile club, state or local trucking association, the police or state highway department all hazardous road conditions, poorly placed traffic lights, signs, signals and markings.

Seventh, put support behind an Institute of Public Safety here at the University of Wisconsin that will provide continuing benefits to all citizens of the state in providing traffic training service.

During the next decade I am confident we will see highway transportation developments contribute to a major advance in the world standard of living. America's own economy will expand with the expansion of motor transport. Improved and specialized highways, better terminal facilities for trucks and trailers, and improved automotive equipment will work to lower the cost of everything that men eat, wear or use. Fleet supervisors and operators are going to have a direct part in this dynamic development.

THE STAFF OF
TRAFFIC ENGINEERING
WISH OUR READERS
A Merry Christmas

Mirrored Roads

by HARRY E. NEAL, *Member, ITE*

IT was done with mirrors. The trick was to make it possible for motorists to see around a blind intersection. TRAFFIC ENGINEERING solved the problem by the ingenious method of installing a large mirror to permit drivers a reflected view of approaching traffic.

The trouble spot was at a T intersection formed by the junction of a township road with State Route 9 in Belmont County, about one and a half miles south of St. Clairsville.

Alignment of the State Route was curved on both approaches, with rather steep grades descending toward the intersection. In addition, an overhead railroad structure was located across the State Route within 30 feet of the intersection while a highway bridge over a stream was situated some 25 feet on the other side of the intersection. As a result of these conditions, sight distance was limited to less than 60 feet across one corner of the intersection.

The problem of the safe operation of traffic became acute when a new coal mine shaft was opened near the township road. Traffic density on this road increased from a few vehicles (estimated at less than 12 daily) to nearly 1,000 per day. Prior to the opening of the mine entrance the average daily density of traffic on the State Route was 250 vehicles at an average speed of 40 miles per hour through the intersection.

The situation called for something unique in traffic engineering technique. Physical conditions precluded the ordinary intersection treatment of signs, stop-and-go signals, etc., and it was considered unreasonable to have a flagman on duty daily throughout the daylight hours.

State Route 9 was speed zoned at the location and a channelizing island was constructed at the township road approach to the intersection.

These improvements, however, didn't provide the full answer. Consequently a 30″ x 36″ plate glass mirror, mounted in a semi-weather protected frame, was installed on State Route 9 so as to face traffic entering the intersection from the township road. The mirror was placed at an angle so as to provide a reflected view of State Route 9 that opened up the restricted sight distance of less than 60 feet to a sight distance in excess of 500 feet.

As soon as the equipment is available, a highly polished steel plate of larger size, with an electric heating attachment to prevent fogging, will be installed to replace the plate glass mirror.

Accidents were frequent at the intersection before the installation of the mirror. There has been no accident reported since the mirror was installed.

The installation, designed by the Division of Traffic and Safty, Ohio Department of Highways, is the first of its kind in Ohio.

Mr. Neal is chief engineer, Division of Traffic and Safety, Ohio Department of Highways.

TRAFFIC ENGINEER

Quiz

PREPARED BY
MARTIN STARK

January

TRAFFIC ENGINEERING
MAGAZINE

The Township road approach to State Route 9.

Driver entering intersection from Township road is provided a safe view, by mirror reflection, of traffic to the left approaching on State Route 9. Sight distance is increased by the mirror from less than 60 feet to more than 500 feet.

Near-Side Versus Far-Side Stops

by CHAS. J. WALKER

TODAY, without mass transit facilities, cities would cease to exist and there would be no urban traffic problems. Therefore, if we are to aid in the life of our cities, we are obliged to plan the very best possible transit facilities, laying emphasis upon both economy of operation, and safety to the public.

On which side of a street intersection should transit vehicles stop to load and discharge passengers, to the greatest advantage af all, cannot be answered directly, because of the number of variables entering into the conditions surrounding each type of vehicle and each intersection. There is no one simple formula.

Study Required

Much confused thinking on the subject of near-side versus far-side stops is due to the habit, in the past, of combining in a single study the question of streetcars, trolley coaches and motor buses. Two or three studies should be made; first, that of the streetcar alone; second, the study of buses and trolley coaches without consideration of streetcars; and then a combination study with the results of the first studies as a basis.

If the first study proves that the streetcar should make a near-side stop and the second study indicates the buses should make a far-side stop, what then is recommended when streetcars and buses use the same street? The prevailing custom seems to be to stop both vehicles on the near-side, even though the street is narrow and this plan blocks all movement. In such a case we have a block to block stop and movement largely is under the control of the streetcar motorman instead of the traffic signals. If the street is wide and a safety island is provided for streetcar patrons, why not allow the buses to berth on the far-side, thereby breaking the jam and allowing progressive movement of other traffic? Why allow one element to "hog the road." Most discussions in the past, and by others than traffic engineers, seems to be traditionally slanted from the streetcar angle. I believe we all agree that for streetcars alone, the near-side stop is almost always proper; however, in a city having no streetcars, the question is wide open for solution on a traffic engineering basis. After this point is resolved, the problem of combined streetcar, trolley coach and bus operation on the same street can be approached properly.

It seems quite obvious that streetcars and trolley coaches making use of the center lanes only, and with or without safety islands should preferably make a near-side stop. The question then is what to do about trolley coaches and buses when berthing at the curb; first, on streets having no streetcars; and second, on streets with streetcars? In each instance consideration should be given to whether the intersection is or is not signalized and to the number of lanes, both parking and running, and to turning regulations.

Residential Areas

In the residential area, on streets operating buses only, if blocks are short, a "skip-stop" program may be in vogue allowing stops at alternate

cross streets. When the bus stops on the near-side and if it is back 20 feet from the cross walk, which is the exception rather than the rule, although required by Indiana law, it will block the vision of pedestrians to on-coming vehicles on the same side of the street. Many pedestrian accidents are caused by buses stopping, at the curb, on the near-side.

With parkway conditions, as usually occurring, the near-side stop at the curb with the front door of the bus at the cross walk is quite a universal practice and it does have the advantage of providing a safe place for passengers to enter or leave the bus. Many accidents to passengers are due to falling while entering or leaving the bus at unpaved parkway locations. Equal safety to the passenger cannot be provided at the far-side without suitable paving of the parkway.

Business District

In the business district the most useful condition for the "far-side" stop is found where mass transportation vehicles are exclusively of the bus type.

In the case of streetcars, using the center portion of the street and trolley coaches unable to reach the curb, the near-side stop is generally correct.

When a combination of vehicular types occur such as streetcars and buses it is sometimes a benefit to make use of the near-side stop for streetcars and the far-side stop for buses, especially if safety islands are provided and a through and right turn lane are available. As the number of streetcars in service diminish a much more generous use of curb space for bus berths becomes necessary.

Reduction in curb parking facilities usually meets with considerable disapproval on the part of private drivers. This resistance can be overcome educationally from the point of view that the parking problem bears equal responsibility in the over-all traffic problem, and must be met squarely in order to aid in checking the declines of centralized business areas.

In congested areas on streets with bus service only, buses may be required to move in trains of not more than three, while aiming at a minimum headway of two cycles. These trains will endeavor to approach the intersection signals as the "last car" of the group, and will move through the intersection and berth on the "far-side" at the curb.

Objections to "Far-Side" Stops

Objection 1. When the berth space is filled by buses on the far-side, the following bus is compelled to stop in the cross street thereby blocking same.

Answer: With "near-side" stop at curb, when curb parking of autos is permitted, any buses unable to enter near-side bus-zone must halt in the second lane. This is very similar to the conditions prevailing with "far-side" stops, when the following bus, being unable to enter the berth, is required to wait on the near-side of the intersection also in the second lane. When a minimum of three lanes are available such conditions are tolerable, and there is no interference with progressive movement.

Objection 2. At signalized intersections making use of far-side stops, double stops are often necessary.

Answer: With "near-side" stops, double stops are also often necessary when the bus starts from its berth too near the end of the green interval.

Objection 3. Buses pulling away from the curb are liable to angle collisions.

Answer: Buses should pull out from curb after wave has passed.

It is to be noted that all three of these objections seem to apply about equally to both sides of the intersection.

Objections to "Near-Side" Stops

1. Conflict with right and left turns is a distinct hazard, causing collisions and delaying bus operations, thereby interfering with all traffic, vehicular and pedestrian, alike, and necessitating longer cycles. One transit company reports 50 per cent of its intersection accidents are due to collision between buses and right-turning autos.

With heavy right and left turning movements at any intersection the conflict is very serious. If buses berth at "far-side", the right turns are made properly from the first lane, and conflict with left turns is lessened.

Conditions Best Suited to "Far-Side" Bus Stops

1. Buses to berth at curb.
2. Street width ample with a minimum of two running lanes each direction.
3. Flow control of buses.
4. Sufficient curb space to allow any bus of a train to leave curb without interfering with others not ready to move.
5. Buses to leave the curb after traffic wave has passed.

The curb space required to berth one 40-passenger bus at the "near-side" is 50 feet, while at the "far-side" 60 feet is required.

There can be no hard and fast rule governing location of bus stops, we will continue to have "near-side", "far side", and "mid-block" stops. The traffic engineer will, however, continue his study from point to point in his effort to improve the over-all operating conditions for the purposes of economy, safety and comfort to the users of our streets, be they transit riders, drivers, or pedestrians.

Each intersection should be separately studied and proper disposition made of the particular type of vehicle involved, irrespective of any general "near-side" or "far-side" theory for the entire city. (Paper presented at 33rd Annual Purdue Road School.)

NEW DEVELOPMENTS IN TRAFFIC ENGINEERING

by CHARLES S. LECRAW, JR.
Associate Editor

There are three recent publications on the ever-present problem of parking which will prove of interest to all members of the INSTITUTE and any others who are faced with the parking problem.

Parking Garages for San Francisco. This report, published in June, 1947, was prepared by Bryant Hall, Principal City Planner, City Planning Commission, San Francisco. The report does *not* present a recommended action program. If it did so, it would be of interest only to those persons in the San Francisco area. Rather, the report investigates many of the basic factors which serve to make the parking problem complex wherever it is encountered.

There is a complete discussion of the economic factors of garage construction, including such important items as cost of land, cost of structure, interest and amortization, taxes, costs of operation, and profit.

A section discusses the aspect of obtaining income from sources other than parking in order to lighten the economic burden imposed upon a garage. Various land uses are suggested which might be combined with a parking garage.

The report contains several tables and a number of graphs illustrating several relationships discussed in the text.

Factual Guide on Automobile Parking for the Smaller Cities. Public Roads Administration issued this report in September 1947. It contains a very concise statement of the parking problem and detailed information on fields in which P.R.A. has long been the leader. Among these are: the legal aspects of parking; the problem of land acquisition; location and design of parking facilities; and the

parking studies necessary to determine the extent and nature of the problem in any locality.

The appendices of the report contain representative ordinances and laws pertaining to parking; tables giving parking meter usage and revenue; and additional references.

An Economic Study of Interior Block Parking Facilities. Issued as Report No. 3 of the Technical Series established by the Yale University Bureau of Highway Traffic, this report summarizes the results of a study conducted in New Haven, Connecticut. The study proves that unused land in the rear of business establishments may be obtained for parking at a much less initial cost than the heavily developed street-front property.

The report has been issued to all members of the Institute; additional copies are available at the Bureau of Highway Traffic, Strathcona Hall, New Haven, Connecticut.

Road Work Blocked

The Commonwealth of Pennsylvania has found itself barred from clearing the right-of-way for a proposed highway improvement by provisions of the Federal Rent Control Act of 1947.

A federal district court at Philadelphia handed down a decision enjoining the state from evicting tenants of four houses in the path of the proposed multi-million dollar widening of Vine Street in Philadelphia. The state had purchased the houses in order to tear them down, but then rented the structures during the war because machinery and labor were not then available for the widening project. Rental prices were registered with the now defunct Office of Price Administration.

Preparing to go ahead with its plans for the project, the state ordered eviction of the tenants in the buildings recently, and the matter was brought before the court. Richard Hay Woolsey, special counsel for the state, announced the decision will be appealed to the U. S. Circuit Court of Appeals, and that if a decision is not rendered before February 29, 1948—when rent control is slated to end—the residents will be evicted at that time.

The State Highway Department said that work will continue on all sections of the new roadway excepting in the locations where the four structures stand.

District Judge Guy K. Bard, in handing down the decision, said that a new highway would not qualify under the federal act as "new construction" to replace demolished housing. "The project is a commendable one", the jurist said, "but the legislative mandate expressed by Congress in the rent control act cannot be ignored."

EXTRA CARE, 6 TO 7 P.M.

A warning to pedestrians to be extra careful in traffic between 6 and 7 P.M. during December and January, was issued by the Street and Traffic Safety Lighting Bureau, national information service on traffic accidents and crime after dark.

Pedestrian deaths, the Bureau warns, are four times as great for the hour between 6 and 7 P.M. in each of the two months—December and January—as the average per month for the other nine months of the year with the exception of November.

The cause of this high pedestrian fatality rate in December and January is the low visibility during Winter when this hour is dark compared with the other nine months when the hour is light, according to the Bureau. Existing street lighting is inadequate to compensate for the loss of daylight visibility and pedestrians forget to modify their traffic habits accordingly.

The Stop Light

by STANLEY BAITZ, *Washington Sunday Star*

Editor's Note: The following article which appeared recently in the Washington Sunday Star magazine is an excellent example of public relations for traffic engineers.

THE ANONYMOUS individual most reviled by local motorists when they feel they aren't getting a break from traffic is a slender, pleasant young man with a ready smile and brown hair lightly flecked with gray. With his job, the gray was inevitable.

He is John H. Mitton, District Traffic Engineer, whose main concern is how to nudge traffic along swiftly and safely. Traffic lights are a big item among his headaches. He is the first to admit that Washington's traffic light system is not so good as he'd like it to be. And he also will lead you gently by the hand to his maps and charts and explain why. It is a long story, one that goes back into the years.

His thesis is twofold:

1. Washington is laid out so as to set up barriers to the free movement of traffic.

2. The traffic light system lacks any real central control. It is too inflexible because of the way it was installed years ago. It will cost money to change.

As for item No. 1, not much can be done in the way of immediate solution. Washington's street plan is unique among cities of similar size. Superimposed on the usual "gridiron" layout are radial and diagonal avenues, multiple intersections, circles and squares, all of which considerably reduce the number of through streets. Furthermore, natural and artificial barriers are set up by the Potomac River, Rock Creek Park, Soldiers' Home, the Anacostia River and the Federal Triangle.

Add to that the fact that a far higher percentage of Washington's population goes into the downtown area by auto each day than in any other large city in the country, and you have the makings of a middling to high-grade traffic puzzle.

As for item No. 2, Mr. Mitton and his associates are hoping to install a central control board which will enable them to synchronize and control traffic lights all over town with existing traffic or weather conditions. As it now stands, they can't. The system is a melange of group and single light controls. In other words, in some areas a group of from two to four intersections are controlled by one timing device. In other areas, particularly in the outlying sections, the lights are individual units, having no connection at all with lights at any other intersection.

Plans are being prepared for the central control system, which, it is estimated, will cost about $300,000 to install.

Lights work on an 80-second cycle. That is, from one color around to that same color again takes 80 seconds. However, the timing device at an intersection can be set so that one color gets a longer span than another —within the 80 seconds, of course.

To change the timing to meet rush hours, special crews would have to be sent out to reset the cycle at each timer and then reset it to normal when the rush was over. The Traffic Department doesn't have the manpower to do it that way.

An effort is made, however, to meet the crisis on some downtown streets. For instance, on Thirteenth and Sixth Streets N.W., the lights are so fixed in the morning that southbound traffic

can flow fairly uninterruptedly. In the late afternoon they are adjusted for northbound traffic.

Naturally, in case of such special adjustment, crosstown traffic suffers somewhat. Rather than tie up crosstown traffic too much, Mr. Mitton says, "we have to compromise." The result is, he concedes, that somebody is always unhappy.

Ever wonder why you are always meeting two red lights in a row? The group-light system is the reason. What happens is that you hit the last light of a group as it turns red, and then the first of a new group. After you clear that second red light, you probably will be able to go for several blocks without stopping.

However, such mischances cause Mr. Mitton to be besieged with phone calls, letters and even personal visits from motorists who think they are being wronged by the system.

"Most of them understand and go away satisfied when you explain the entire problem," says Mr. Mitton. "But some still feel that their own is the big problem and something ought to be done about it. They don't see that if you give them more green all along their route you have to give somebody else more red. Or that on their next trip they may be on the cross-street themselves and have to wait for that long red."

There are about 450 intersections with traffic light control, Mr. Mitton says, and about 40 more at which lights would be justified.

Mr. Mitton, who has devoted the past 15 years to traffic experting for the District, has an engineering degree from the University of Maryland and a law degree from Columbia University. He is married and has four children.

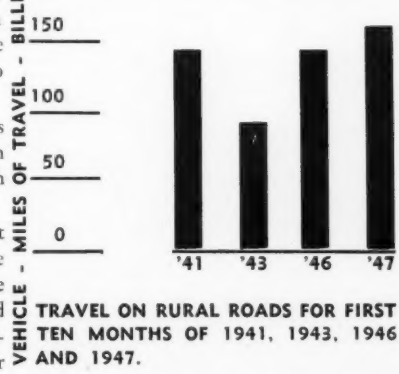
VIEW TELEVISION SAFETY FILM

President Truman and a small group of guests previewed the first television film ever made on highway transportation and safety November 10 at the White House. The film, "In The Driver's Seat", was produced by the American Broadcasting Company, the Inter-Industry Highway Safety Committee and the Automotive Safety Foundation.

"In The Driver's Seat" dramatizes four major areas of safety activity included in the Action Program of the President's Highway Safety Conference—high school driver training, traffic law enforcement, the parking problem and adequate streets and highways.

Sixteen-millimeter sound prints of the film for regular motion picture projection will be made available to state and local Inter-Industry groups, and other interested organizations for showing throughout the United States.

TRAFFIC TRENDS



TRAVEL ON RURAL ROADS FOR FIRST TEN MONTHS OF 1941, 1943, 1946 AND 1947.

[Based on Public Roads Administration Data]

SAFETY COUNCIL PRESENTS "ODD ACCIDENTS"

by PAUL JONES
National Safety Council

When a sparrow smokes in bed and a cockroach kicks a man down the stairs, things are getting good and wacky. But that's what happened in 1947.

And that isn't all. A dead deer shot a hunter. A hit-skip cow made traffic history. A mouse upset a truck, a quail committed suicide, and some busy little bees boarded a streetcar and caused a honey of an accident.

Yes, the annual roundup of odd accidents by the National Safety Council reveals that animals stole the show in 1947. To wit:

Firemen in Camden, N. J., spent an hour looking for the source of smoke that poured through the home of Mrs. Marie Baugher. They finally found it—a bird's nest under the roof. A sparrow had carried home a lighted cigaret. And just to prove that smoking in bed isn't restricted to sparrows, a pigeon in Washington started a fire in an apartment building the same way.

The celebrated case of the cantankerous cockroach occurred in Detroit and involved John Nantico, a bakery employee. Mr. Nantico said he was ascending stairs made slippery by spilled cake frosting when he looked into the leering eyes of the biggest cockroach any man ever saw. Mr. Nantico aimed a knockout kick at the roach with his right foot. The roach ducked. Mr. Nantico's left and anchor foot slipped in the frosting and he hurtled end over end to the floor below. His kicking leg was broken. The cockroach appeared pleased.

A lot of hunters shoot deer, but not many deer shoot hunters—especially if the deer are dead. But a dead deer did shoot Clarence Gerkin of Hudson, Colo., in a neat bit of posthumous vengeance. Mr. Gerkin had shot the deer and was preparing to dress it when a reflex kick by the animal hit his gun and discharged it. The bullet tore through Gerkin's left arm.

The hit-skip cow became part of the nation's traffic problem when it bowled over Mrs. Lucy Nostrand as she alighted from a bus at a busy intersection in Milwaukee. The bounding bovine, fugitive from a farm, whammed into Mrs. Nostrand, knocked her flat, and barreled on down the street.

It is customary each year, of course, for a mouse to run a car into a ditch by merely sharing the car with a lady driver. But this year the mouse got big ideas and decided to tackle a truck. Just to do it the hard way, he selected an army truck, in Daventry, England. The driver, 19-year-old Christine Woodward, had been trained, as a member of the British Women's Land Army, to face bombs, bullets and battle without flinching. But they hadn't thought of training her to face a mouse. So when the ambitious little animal scampered across Miss Woodward's toes, she just did what came naturally. She fainted. The truck went into a ditch, Miss Woodward went to the hospital and the mouse swaggered back to the field.

Far less intrepid was the suicidal quail that found itself looking down the barrel of a gun held by Gene Hatfield in Joplin, Mo. Realizing the jig was up, the quail decided to end it all. It flew straight against the barrel of the gun and dropped at Hetfield's feet with a broken neck.

Possibly stung by the high cost of living, bees apparently quit riding in private automobiles in 1947 and democratically took to streetcars. A merry group of them informally

boarded a trolley in Cincinnati through an open window and evinced high interest in Motorman Earl Armstrong. As Armstrong frantically batted at his bumbling passengers, the streetcar bumped an automobile, which rammed the rear of another, which rammed the rear of another. Meanwhile, buzz, buzz, buzz went the trolley.

In St. Joseph, Mo., Postman A. R. Saunders, thoroughly accustomed to the threat of hostile dogs and other mailmen's maladies, found something new had been added when a patron's pet goose took a look at the mail just delivered, saw something he didn't like and severely nipped the letter carrier.

Not to be outdone by animals, human beings had some fancy freak squeaks themselves in 1947. For example:

Stanley Morrison, of Newburyport, Conn., was surprised to run into his father one day—at a grade crossing. When Stanley's truck crashed into a passenger train at the crossing, the engineer hurriedly climbed down from his cab to inspect the damage. He was Stanley's dad.

As Fireman Horace LeBouf was diligently engaged in carrying Mrs. Catherine Markowski down a ladder from a burning building in Detroit last March, they passed a first floor window. Flames shooting out of the window caught Fireman LeBouf in the seat of his pants. He yelped, spanked himself frantically and let go of Mrs. Markowski, who understandably fell to the ground. Fireman LeBouf lost his balance and landed smack on the lady he had been saving. Mrs. Markowski was bruised, Fireman LeBouf apologetic.

A speedboat carrying Miss Georgia Brooks of Chicago during a holiday outing on Lake Geneva, Wis., swerved so sharply it threw Miss Brooks into the water. Apparently contrite, the boat swerved again, hit the struggling swimmer, tossed her 10 feet in the air and caught her neatly on its prow.

FRINGE PARKING FOR NEW YORKERS

New York City is to have its first "outskirt" parking lot. The Mayor's Special Traffic Committee has announced that the northern end of Flushing Meadow Park, site of the 1939 World's Fair, will be utilized as a free parking area for Manhattan-bound motorists. The committee, headed by Police Commissioner Arthur W. Wallander, hopes the lot will attract those autoists who would ordinarily drive all the way into the city. According to the plan, drivers will be able to finish their journey by subway. It is another step in the campaign to keep as many autos as possible out of Manhattan's congested mid-town areas.

The Flushing Meadow lot can hold 3,000 cars. If successful, the entire World's Fair parking field eventually may be used. In that event, declared Arthur H. Hodgkiss, executive officers of the Parks Department, there would be room for 13,000 autos.

Other cities have found outskirt parking lots satisfactory in filtering-off cars before they reach congested business districts. Cleveland city authorities recently reclaimed several acres of wasteland near Lake Erie for use as a 2000-car parking area. A specially-routed transit line carries Clevelanders from the lot into the heart of the city.

Such parking lots, convenient to trackless trolley, bus or streetcar routes leading into the business sections are becoming increasingly popular with autoists, especially where the transit vehicles run on frequent schedules.

NEW JERSEY GROUPS PROMOTE TRAFFIC PLAN

by HERBERT A. KEEGAN
Associate Editor

Public support for the highway safety program of the New Jersey Highway Safety Coordinating Committee was voted in a meeting held in Trenton. Plans were made to line up more than one hundred statewide organizations behind the drive to save lives.

Lloyd M. Felmly, editor of the Newark News, was elected temporary chairman of the Public Support Organization. He will name an executive committee which in turn will plan for the election of permanent officers. Felmly served as co-chairman of the Governors Safety Conference last May with Motor Vehicle Commissioner Magee.

Magee, Chairman of the co-ordinating committee, who called the meeting, told 24 representatives of organizations which will form the nucleus of the Public Support Organization that it was his hope that the group could stimulate activities to point up principal causes of accidents. These activities, Magee said, could be fitted into the broad program launched by the Governor's committee last May.

Principal Objectives

The principal objectives of the Public Support Organization are to plan, in cooperation with the State Coordinating Committee, a continuing program of public info.mational and educational activities in support of the official highway safety program; to cooperate with the State Coordinating Committee in carrying out specific phases of the adopted program, as assigned, in order to avoid duplication of effort and maximum effectiveness through uniformity; to provide a method of close contact with the State Coordinating Committee for the interchange of information, evaluation of results and the development of new techniques.

The meeting was called in accordance with a resolution adopted at the Governor's Safety Conference last Spring. The resolution, which suggested that a permanent statewide organization be formed for the purpose of carrying on a continuous public information program, declared:

Basis of Success

"The success of a traffic safety program requires that every citizen has a full knowledge of the problem, particularly the causes of accidents and of the manner in which each individual can participate in accomplishing the objective (of accident prevention)".

Emphasis since last Spring has been on the organization of county and municipal committees of public safety officials.

Magee said that each organization that participates in the public support program should be assigned a specific activity which would be correlated with the activities of other groups. The entire program, he said, should be on a uniform and cooperative basis.

Membership in the public support organization will include representatives of newspapers, radio, theatres, the advertising industry, statewide groups which have been closely identified with highway safety promotional efforts, all other non-official organizations having an interest in highway safety which are able to actively participate in the program, and local committees appointed by municipal highway safety coordinating committees.

ACTION NEEDED TO CURB MAJOR TRAFFIC MENACE

Aggressive action by Americans leading to improvement in street lighting will check one of the nation's

worst traffic killers, according to the Street and Traffic Safety Lighting Bureau.

That killer, the Bureau says, is unsafe visibility in night traffic.

The nation's traffic death rate at night, the Bureau says, is 1.8 times daylight, despite a traffic volume which is 75 per cent less!

OPINIONS OBTAINED ON PARKING

A survey was recently made by Canadian Opinion Research on the downtown parking problems of Canadian cities and towns. The report on the results of the survey points out that Canada's motor vehicle traffic is ten per cent above the highest prewar levels. The convenience of the motoring public, including more than 1,000,000 U. S. motorists visiting Canada annually, loss of business through traffic congestion, traffic safety, and the cost to municipalities of parking regulation enforcement were recognized as several aspects of the problem.

Cite Problem

In order to get a picture of the extent and treatment of the parking problem, information was gathered from 208 Canadian centers and test opinion polls were made in typical cities and towns. Of the 208 communities which replied to the research questionnaire, only 54 said they had no parking problem. Of these, 27 have populations of less than 2,000. Of the remaining 27 in this group, some are the fortunate inheritors of wide streets which can deal adequately with the traffic flow; or in some cases —as in residential communities, lacking large business centers or interests— there is no periodic surge of motor traffic into downtown areas. Some other towns included in the "no problem" group are farming communities where heavy parking occurs only on Saturdays.

Few Have "No Problem"

Seventeen of the 54 "no problem" communities stated that parking time limits are proving adequate. Twelve of these consider their parking limit enforcement to be successful and that it does not take up excessive police time. Five others, while deeming the law-enforcement adequate, stated that it does consume too many police man-hours.

Of the 154 communities with a continuing problem, 16 appeared to be neglecting the problem altogether. The remainder are attacking the parking aspect of their traffic control in various ways and with varying degrees of success.

Use Parking Meters

Thirty communities reported that parking meters have been installed. Forty-six communities, while admitting the existence of a problem, claimed it is possible to enforce parking laws adequately without excessive use of police man-hours for this purpose. Three returned questionnaires were not fully answered.

A balance of 59 towns and cities formed an opinion group which considers the situation as far from satisfactory. These communities all believe parking law enforcement entails too much money and police time, and 21 of them are of the opinion that their enforcement is in any case inadequate. Twenty-three of them are considering the immediate introduction of parking meters. The report further shows the special aspect of the tourist problem in Canada with reference to conditions in Ontario. In addition to the existing 720,000 licensed motor vehicles in Ontario, during 1946, a total of 900,000 cars from the United States entered Ontario on tourist permits. A further two and a quarter million vehicles came in on local non-permit entries. The importance of this influx to Canada's economy is now generally recognized.

SAFETY FOUNDATION ESTABLISHED BY AAA

A greatly expanded traffic safety program was launched when the Board of Directors of the American Automobile Association approved the establishment of the "A.A.A. Foundation for Traffic Safety".

Final approval of the establishment of the Foundation was given by the Directors at the closing business session of the A.A.A.'s 45th Annual Meeting, held in Washington, D. C., November 3-5.

The Foundation is authorized to accept contributions and bequests from interested individuals and organizations and will devote its entire resources to the reduction of the traffic casualty toll.

Present Plan

The plan was presented to the Board of Directors by Robert J. Schmunk, Cleveland, Ohio, newly elected President of the A.A.A., and Lou E. Holland, Kansas City, Mo., Senior Vice-President of the A.A.A. and Chairman of the Traffic Safety Committee.

President Schmunk told the delegates that the Foundation would be a separate, non-profit organization but would be closely identified with the American Automobile Association.

"The Foundation will be given wide powers to deal with every phase of the traffic safety problem," President Schmunk said, "but concentrate much of its attention on educational activities in the safety field, including the institution of driver training programs in high schools throughout the nation. The Foundation will produce various types of safety materials and will engage in research and experimentation to test the effectiveness of various safety programs.

"The Foundation," continued Mr. Schmunk, "will not in any way supplant the broad-gauged safety activities now carried on by the A.A.A. and its clubs, but rather is designed to implement these activities because the critical accident situation calls for increased efforts in many directions."

Take Leadership

In outlining the reasons that led to the decision to found the new A.A.A. safety auxiliary, Chairman Holland said it was the responsibility of the users of the highways to take leadership in dealing with this problem because they constitute the group that has the most vital stake in accident prevention. He also warned that unless there is a definite improvement in the traffic safety record there is danger that the country may face legislation at Federal or State levels that will unduly restrict the operation of motor vehicles, such as a very low speed limit.

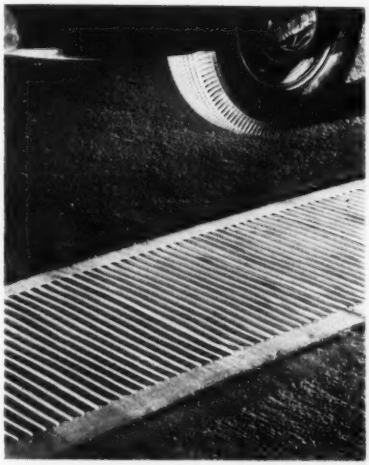
The President of the national motoring body announced that the trustees to administer the Foundation would be elected very shortly and that in addition to A.A.A. nominees, the Board of Trustees would include outstanding representatives of some other groups, including industry, education and professions.

Emphasizing the enthusiastic response to this new attack on the highway safety problem, Mr. Schmunk pointed out that prior to the action of the Board of Directors, the proposal had received the unanimous endorsement of the A.A.A. Traffic Safety Committee, the Committee of Club Officials, the Executive Committee and the delegates to the A.A.A.'s 45th Annual Meeting.

TRAFFIC INSTITUTE ANNOUNCES AWARDS

Northwestern University Traffic Institute has announced that sixteen $650 fellowships and sixteen $200 tuition scholarships will be available to police officers selected to attend its

"SOUND-SIGHT" TRAFFIC MARKERS



Illustrated here is a new type traffic marker recently installed on a New Jersey highway. It is built of scored white concrete made with the light-colored sand and white Portland cement. Its use follows a six-year test on another section of the same road. This new type traffic marker provides an audible as well as a visible warning. The driver can hear it as well as see it.

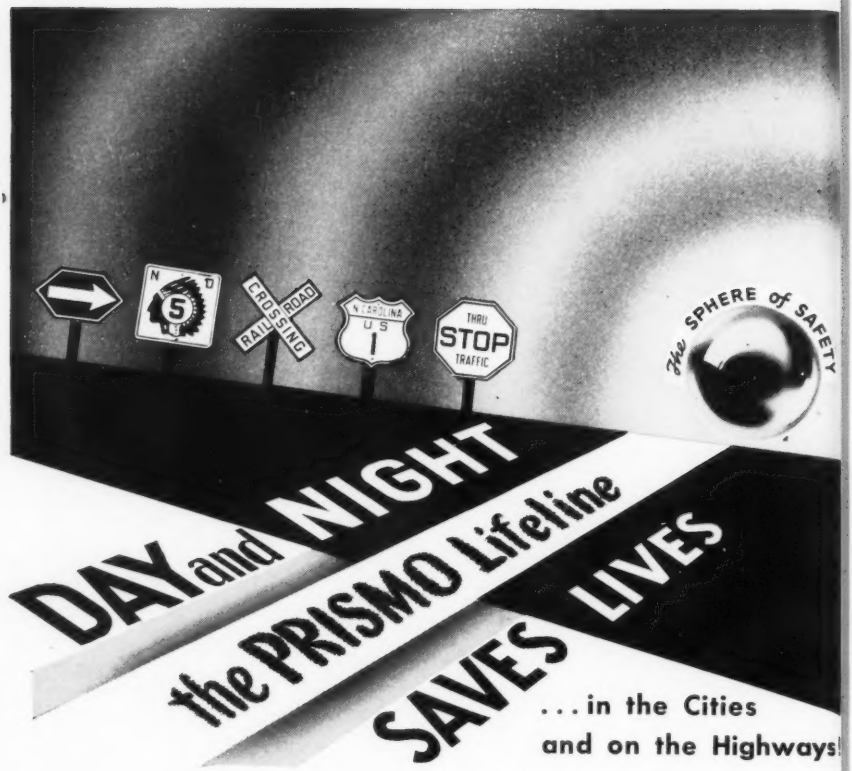
Sound: When a car passes over the ribbed surface of the marker, the action of the tires creates a distinct hum. This hum or whine warns the driver that he is veering out of line. It is audible both day and night, and in foggy as well as in clear weather.

Sight: But of course sound alone is not enough. The driver also must see. The corrugated white marker is highly visible. In the daytime, the white concrete contrasts with the darker pavement; at night it acts as a good reflector of the car's headlights. In addition, the saw teeth of the marker are built at the proper angle to reflect this light in the proper direction—that is, back to instead of away from the driver. The combination of white color for good reflection and ribbed surface for proper direction of this reflected light makes this new marker highly visible under car headlights alone. On rainy nights, the film of running water makes the ribbed white marker even more mirror-like. More light is reflected back to the driver—the white saw teeth are brighter—visibility is further increased.

1948 spring course in traffic police administration.

Funds for the awards are provided by the Kemper Foundation for Traffic Safety, Chicago, and the Automotive Safety Foundation, Washington, D. C.

Deadline for applying for the awards was Nov. 24, 1947. Applications should be addressed to the Director, Northwestern University Traffic Institute, 1704 Judson Avenue, Evanston, Ill. Application forms will be furnished upon request.



...in the Cities and on the Highways!

THE PRISMO LIFE-LINE ON PHILADELPHIA'S BENJAMIN FRANKLIN PARKWAY

Note how clearly it stands out, even from high heights and far distances.

WHEN YOU SEE A PRISMO LIFE-LINE...
You See A Safer City

PRISMO IS: The most **protective** highway marking material known, because it is the most scientifically **reflective** marking material known.

Standard in many cities, counties and states for all danger points, including no-passing zones, fog-lining and municipal marking.

Prismo outwears 3 to 5 applications of ordinary marking material. Gives 24-hour-a-day, widest angle visiblity with reflectivity undimmed even after many years. Maximum economy, durability and diversity of application. WRITE FOR BULLETIN 461.

THE PRISMO SAFETY CORPORATION

HUNTINGDON . . . . . PENNSYLVANIA

TO MAKE AWARDS IN DRIVER EDUCATION

Announcement of the inauguration of a series of annual awards to states for outstanding achievement in the field of automobile driver education was made recently by the National Conservation Bureau, nation-wide accident prevention organization.

The awards, in the form of plaques and certificates will be presented to each state which attains recommended standards in the maintenance and expansion of safe-driving courses for youths who have reached or shall soon reach driving age. The objective of the awards is to recognize accomplishments in the development of high school driver education by those governmental agencies of the various states responsible for highway safety and public education. Moreover, to recognize the monumental work of non-official agencies in support of the furtherance of this form of public education.

Three types of awards will be given. They are:

1. Meritorious Award—to each state having a full course in driver education in 25 per cent of its secondary schools and having enrolled therein not less than 25 per cent of the eligible students.

2. Superior Award—to each state having a full course in 50 per cent of its secondary schools and having enrolled therein not less than 50 per cent of the eligible students.

3. Award for Excellency of Achievement—to each state for achievements attained in the development of a comprehensive, state-wide high school driver education program. This special award will be made at the discretion of the judges and will be based upon developments including such factors as preparation of teachers, percentage of annual increase of schools teaching driver education, percentage of annual increase of enrollment in the courses, colleges offering credit courses. State agencies may do their share in obtaining this coveted award since judging will also be based upon such factors as delegation of responsibility for cooperative programs to responsible state agencies; recognition by state licensing authorities, through waiving of certain requirements, for issuance of driver licenses in favor of those students who successfully complete the course, and maintenance of accident records of graduates of courses by the concerned state agency.

Announcement of the winners of the awards will be made June 1 of each year. The awards for each state will be made to its governor. Whenever possible the presentation will be in conjunction with the close of the academic year or in connection with an appropriate educational or safety conference.

The City of Trenton, N. J., purchased 350 parking meters which were put in service on May 26 and 27, 1947. These are all one hour meters providing sixty minutes parking for one nickel. They were accepted without objection by the motorists and merchants.

The City paid cash for these meters upon installation, the actual cost being $16,805.25. This was based on a sales price of $49.50 per meter installed, less 3 per cent for cash.

Collections have been made each Monday and by October 13 the receipts totaled $16,984.05. Consequently, these meters have paid for themselves in about four and one-half months. This appears to be an exceptionally good record. Based on the experience thus far, it is estimated that the receipts from this installation will be about $125.00 per meter per year.

Additional meters are now being installed, including 75 one hour meters and 275 meters providing one hour for one nickel or two hours for two nickels.

Announcing

NEW WIDE ANGLE TRAFFIC WHITE "SCOTCHLITE"

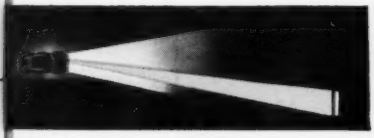
. . . extra brilliance in any weather

In fair weather or foul, your highway signs have new sparkling whiteness, new all-angle effectiveness with Wide Angle Traffic White "SCOTCHLITE." Information signs, guide signs of all kinds flash their message with new legibility; increased angle of reflection. Motorists spot 'em sooner; read 'em faster; see 'em longer.

Now, with Wide Angle Traffic White "SCOTCHLITE" for guide signs and Wide Angle Traffic Yellow "SCOTCHLITE" for warning signs you have a team that gives *all* your highway signs the extra brilliance, extra effectiveness called for by modern highways, modern speeds.

For complete information on new Wide Angle Traffic White or Yellow "SCOTCHLITE," drop us a line and we'll be glad to send you all the details. Address Dept. TE 127.

WIDE ANGLE TRAFFIC YELLOW FOR WARNING SIGNS



Warning signs are overall reflectorized in color with wide Angle Traffic Yellow "SCOTCHLIGHT" to give motorists signs

they can recognize by shape and color night or day: brilliant signs that are picked up sooner, keep on warning longer.

SCOTCHLITE

REG. U.S. PAT. OFF.

REFLECTIVE MATERIAL

ANOTHER 3M COMPANY PRODUCT

Made in U.S.A. by **MINNESOTA MINING & MFG. CO.** St. Paul 6, Minn.

REFERENCE NOTES

TYPES OF SIGNALS USED IN 16 CITIES

City	No. of intersections controlled by: Center-suspended only.	Far-corner only.	Center-suspended and far-corner combination.	Mast-arm only.	Mast-arm and far-corner combination.	Other types.	Total signal-controlled intersections.	What is the best method of coping with neon and other signal interference?	Is such interference extensive?	What are positions of signals so affected?	What type signal is most effective in controlling: Pedestrians? Vehicles?	Has your city installed center-suspended signals since end of war? What determined choice of this type?
Buffalo	339	0	10b	0	0	0	349	Prefer center-suspended or mast-arm signals	Only on corner signals.	Pole-Mounted far corner.	Ped-Far-corner ped signals (auxiliary Veh-center-susp.	Yes. 40. This is standard type.
Chicago	0	0	0	0	0	1113f	1110	Use legal controls and restrictions. Increase lamp size.	No.	Pedestal or pole-mounted.	Ped-Pedestal or pole-mounted. Veh-Pedestal or pole-mounted.	No. Not favored under any consideration.
Cincinnati	0	252	4	0	58c	0	314	Change signal position or install shield.	No.	Pole-mounted far corner.	Ped-Far-corner or far-side; susp. by mast-arm or cable. Veh-Same as ped.	No.
Detroit	e.	0	0	0	0	0	577	Use overhead signals susp. over lanes to be controlled.	Yes.	Pole-mounted.	Ped-Far-corner pole-mounted. Veh-Susp. over lanes affected.	No. Are installing suspended signals over lanes to be controlled.
Houston	5	202	0	0	0	0	207	No comment.	No.	Pole-mounted far-corner.	Ped-Far-corner pole-mounted. Veh-Far-corner pole-mounted.	Yes. 2. Used at out-lying locations with out curbs to protect far-corner type.
Kansas City, Mo.	0	129	0	0	0	0	129	Prefer use of mast-arm signals.	No.		Ped-Far-corner pole-mounted. Veh-Far-corner pole-mounted, using supplementary mast arms on wide streets.	No.
Los Angeles	0	379	2	0	6	765j	1152	Solution depends upon local conditions; suggest shield or mast-arm signal in extreme cases.	No.	Pole-mounted.	Ped-Far-corner. with supplementary bracket arm on high-speed streets. Veh-Far-corner.	No.
Minneapolis	0	236	0	0	0	73h	308	Local ordinance requires at least 13' clearance to bottom of all signs.	No.	Pole-mounted.	Ped-Far-corner pole-mounted. Veh-Far-corner pole-mounted.	No. Do not consider center-susp. type.

Newark	0	154	0	0	46e	0	200	Use large shields on signals.	No.	Pole-mounted at curves and "T" intersections.	Ped-Far-corner pole-mounted. Veh-Far-corner pole-mounted on streets less than 50' wide. Mast-arm horizontal, on streets over 50' wide.	No.
New Orleans	23	90	0	8	3	0	124	Proper placement and shielding of signal heads.	No.	Improperly mounted bracket heads.	Ped-Far-corner pole-mounted. Veh-Far-corner pole-mounted.	Yes, 3. Cost and equipment on hand.
New York City	6	5000	75	300	200	1199	6780g	Use adequate number of properly located signal faces.	Yes.	Varied positions.	Mast-arm, far-corner and center-susp. types are equally effective for both peds and vehicles when properly used.	No.
Oakland	0	135	1	0	2	9g	147	Use large shields on signals.	No. 10% of signals have shields.	Pole-mounted far corner.	Ped-Far-corner pole-mounted. Veh-Suspended over lanes affected.	No. No criteria developed for center-suspended.
Pittsburgh	0	349	0	0	0	0	349	Owners are required to change position and color of signs or remove entirely	No.		Ped-Far-corner pole-mounted. Veh-Far-corner pole-mounted.	No.
Philadelphia	2	704	2	221	11	201	1011	Use shields on signals, or mast-arm signals.	No.		Ped-Far-corner pole-mounted. Veh-Far-corner pole-mounted.	No.
Portland	0	22	0	0	34d	101g	157	Use far-side suspended signals over lanes to be controlled.	Yes.	Pole-mounted.	Ped-Far-side "walk-wait" signals. Veh-Far-side susp. over lanes affected.	No.
San Francisco	0	51	0	0	0	209f	260	Negotiate with owners to change position and color of signs	Yes	Pole-mounted.	Ped-Pole-mounted. Veh-Pole-mounted.	No.

NOTES

a. Detroit is following a plan of suspending from opposite corners, over the traffic lanes affected. These signals, however, have four heads each thus giving two indications in each direction, essentially near-right and far-left. In many cases, these are supplemented by pedestal mounted far-corner signals. No figures available on number of intersections controlled by each type.

b. Far-corners are auxiliaries for pedestrians only.

c. 35 to 58 are supported by span cables but are in normal position of mast-arm signals.

d. Far-corner signals are: ped "walk-wait" signals only. Vehicle control signals are cable-suspended on far side, in normal position of mast-arm signals.

e. These are horizontally mounted on mast arms.

f. Near-right and far-left.

g. Not specified.

h. These are center-mounted, on islands or stanchions; considered obsolete and are being replaced.

i. Near-right, pedestal mounted.

j. These are semaphore arm signals, with supplementary red and green lights. No amber provided, double red providing all-stop interval. Mounted on the near-right and far-left corners.

[*Based on data collected by R. T. Dorsey, Mem. ITE, traffic engineer of Los Angeles*]

LEADERS ENDORSE TRAINING PROGRAM

That the training of youthful drivers is a No. 1 objective in highway safety activities was confirmed recently when three national safety leaders praised a recently announced plan for giving public recognition to states making progress in high school driver education courses. The plan, which includes a program of annual awards to states which meet and uphold certain high standards in driver training, was announced by the National Conservation Bureau.

Endorsing the award program were: Maj. Gen. Philip B. Fleming, chairman of the President's Highway Safety Conference; Ned H. Dearborn, president of the National Safety Council, and Dr. Herbert J. Stack, director of the Center for Safety Education at New York University.

38 States Participate

Meanwhile Thomas N. Boate, acting manager of the National Conservation Bureau, announced that 38 states have already indicated their intention to participate in the driver education advancement program and to try for eligibility for the annual awards. Three types of awards will be given. They are:

1. Meritorious Award — to each state having a full course in driver education in 25 per cent of its secondary schools and having enrolled therein not less than 25 per cent of the eligible students.

2. Superior Award—to each state having a full course in 50 per cent of its secondary schools and having enrolled therein not less than 50 per cent of the eligible students.

3. Award for Excellency of Achievement—to each state for achievements attained in the development of a comprehensive, statewide high school driver education program. This special award will be made at the discretion of the judges and will be based upon program developments including such factors as preparation of teachers, percentage of annual increase of schools teaching driver education, percentage of annual increase of enrollment in the courses, colleges offering credit courses.

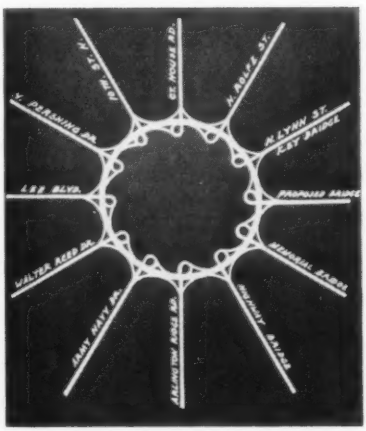
Awards in June

Announcement of the winners will be made June 1 of each year. The certificates and plaques marking the awards will be presented to the state governors.

"Training the youth to drive is the No. 1 objective in highway safety activities", said General Fleming in his statement. "While it is true one is never too old to learn, one may be too late, victim of his own fatal accident. The best time for anyone to learn to drive is in his teens before he makes his debut on the highways.

"Drivers education in high school is as fundamental as instruction in the three R's in elementary school. Drivers

CLIFTON STONEBURNER EXPLAINS THIS IN THE JANUARY ISSUE OF TRAFFIC ENGINEERING



well trained in high school will yield manifold returns on the training investment for decades—returns in lives saved, property conserved, time gained, happiness.

"The President's Highway Safety Conference is, therefore, solidly behind programs for driver-education in high schools. It is aiding this essential activity through its action program for educators, drafted by educators. And through its member organizations it is developing sources of motor-vehicle equipment for high schools, teacher-training courses, textbooks, visual aids, and other materials.

"The National Conservation Bureau as one of the member organizations vigorously promoting driver education in the high schools, merits commendation. I appreciate its service in this vital phase of the Action Program of the President's Highway Safety Conference and urge secondary-school administrators everywhere to participate in its project of Awards to State Government for Achievements in the Development of High School Driver Education".

Fewer Accidents

"Anyone with the most elementary knowledge of the results of driver training recognizes its importance," Mr. Dearborn pointed out. "Some comparative studies of the accident records of groups of trained and untrained drivers show that the trained drivers had 50 per cent fewer accidents than those who had not had special driver education and training.

"I sincerely hope that your award plan will stimulate the much needed further development in this field."

Dr. Stack said it will be interesting to see how many states qualify for the first awards when they are announced next spring.

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ARMY PERSONNEL AT TRAFFIC INSTITUTE

Northwestern University Traffic Institute took on a khaki hue in November when 25 Army officers and safety personnel arrived from stations all over the country to begin a four-week military traffic control course.

The course, part of the Army peacetime safety program, will be one week longer than the previous three Institute Army courses.

"The Army feels these courses have demonstrated such great value that more time should be allowed for additional training," Arthur R. Forster, Institute director of training, said. "We're teaching the same principles and methods used effectively in civilian safety and control, adapted to Army needs," he said.

Rex R. Andrews, assistant director of training and former Highland Park, Ill., police chief, will be in charge of the course. He will be assisted by regular Institute instructors, many of whom have had extensive military traffic control experience during the war.

LETTERS TO THE EDITOR

With all the nation-wide chatter on municipal parking lots and facilities, Minneapolis is in the "swim" too. We here have studied this proposal since I returned from service in May, 1946, and a report to the City Council in January, 1947, revealed our suggestions on the matter. Since that time it has been talked about, for and against, disregarded and reaccepted again. Finally a new City Council Committee (on traffic) has revived it, and after study have forwarded it to the Progress and Priority Committee (of the City Council) for further analysis.

The simple plan calls for street level parking lots, for which a reasonable cost per car is charged. Lots are spaced where the demand for parking is greatest, with the cost of acquisition lowest and of the greatest benefit to the loop. They "fringe" the loop area, and in only two cases are the distances more than three blocks from the loop center. If additional parking demand is recorded at one lot area, a simple open deck construction can be undertaken which will increase the area by approximately 60 per cent.

Interesting is the fact that at present the tax income of these 20 full blocks is only $201,848.00 (1947) while the estimated return from street level parking with only 60 per cent of the parking space used is $305,000.00.

Estimated cost of operation yearly is $295,000.00 (1st year) and $265,200.00 the following years.

R. H. SPRUNGMAN
Traffic Engineer

Editor's Note: Proposals now being considered by the City Council call for an initial expenditure of $5,349,000 to provide parking lots where the demand is the greatest and strategically placed to provide parking space within three blocks of any point in the downtown loop area. If additional parking demand were found, single deck structures would be constructed thus increasing the capacity by about 60 per cent. The lots shown in the accompanying illustration would provide space for 8,495 cars. Proposed parking charges are 20 cents per day.

Cordon counts taken in 1946 show an accumulation of 16,000 vehicles in the central business district during the daytime peak, divided into 81 per cent all-day parkers and 19 per cent short-time parkers. Although the greater share of all day parkers now find space in off-street facilities, it is felt that additional cheap parking must be developed to attract the all-day parkers away from the core and leave the most desirable and expensive spaces for the short-time parkers.

Other means of easing the parking problem are also proposed, including additional metered areas, higher meter fees, increased fines for parking offenses, shuttle bus service to the fringe lots, and zoning requirements for integral parking facilities in connection with new buildings.

You will probably be interested in the following in connection with the article which Mr. Fred Hurd, Bureau of Highway Traffic, Yale University, wrote recently.

The Alabama Department of Public Safety has just determined that accidents and fatalities on the minute-map test highway show a decrease of over 18 per cent. Other highways without these signs show a general increase.

The Department has been compiling statistics and a comparison was made to learn what effect minute-maps have on highway safety. The first nine months of this year was used for comparison with the last comparable period, the first nine months of 1941. Traffic has been greater this year on the test section than in 1941 due to the state legislature being in session at Montgomery. This is also worthy of note.

Minute-maps have been subjected to tests by the Department for approximately two years. Earlier signs were removed and improved ones installed in January, 1947, along the test section, the 105 miles of U. S. 31 between Birmingham-Montgomery.

We realize that this decrease in accidents and deaths cannot be credited solely to the minute-map installation. Since other highways without these signs have had an increase in casualties however, we know that minute-maps were definitely a contributing factor in making this saving possible on the test highway.

The State Highway and Public Safety Departments should receive full credit for their progressiveness in perfecting a new and effective approach to accident prevention.

D. C. BEATTY
Birmingham, Ala.

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CHILD DEATHS HAVE DECLINED SINCE 1927

"More than 29,000 persons are now living who might have been dead had the trend of child accidents followed the rate of adult fatalities in the United States during the past 15 years", says Dr. Herbert J. Stack, director of the Center for Safety Education at New York University. Writing in the current issue of the Casualty and Surety Journal, official organ of the Association of Casualty and Surety Companies, Dr. Stack attributed the improved experience in child accidents to school safety programs and pointed out that insurance companies had been at the top of the list of organizations promoting such programs.

"The stock casualty companies have made an outstanding contribution to the child safety movement," said the educator. "Their work has won the respect and confidence of the country's schools. For this is certainly one field in which the aims of public education and the insurance companies are identical—to reduce loss of life and preventable injuries to children. Here is where a great industry is helping prepare the tools and the techniques; and the schools, the police, the safety councils and other community agencies are cooperating to reduce accidents."

25 Per Cent Reduction

Reviewing the total traffic deaths during the past 30 years, Dr. Stack pointed out that even though there has been a steady increase in the number of deaths in all ages, child death tolls have been declining since 1927. In 1920, for example, child traffic deaths were 25 per cent of the total; in 1940 and 1945 they had been reduced to 8 per cent.

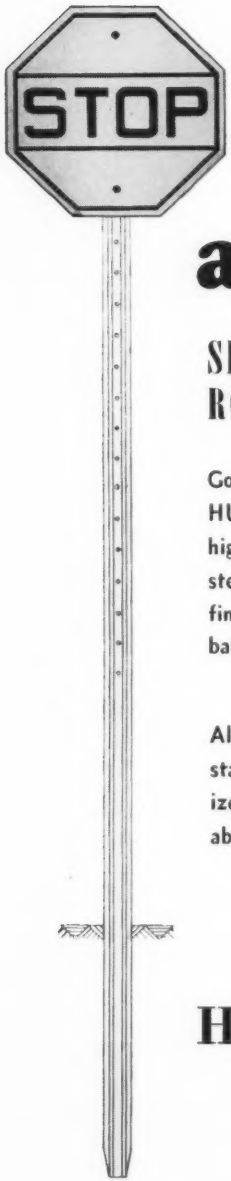
In most areas of the country the child death and non-fatal accident curves are approximately the same, he said.

Pointing out specific examples of contributions to child safety made by stock insurance companies, Dr. Stack said that between 1922 and 1927 the companies, through the National Bureau of Casualty Underwriters, provided annual grants which financed most of the work of the educational division of the National Safety Council. It was during this period that the child safety movement was greatly expanded and first became effective.

Adopt Textbook

Later the Center for Safety Education was founded through a grant from the Association of Casualty and Surety Companies, an organization which is still the Center's chief supporter. In recent years high school courses in safe driving have been given considerable impetus through a cooperative program of the National Conservation Bureau, the Association's accident prevention organization, and the Center for Safety Education. "Man and the Motor Car", a high school driver education textbook published by the National Conservation Bureau, has been officially adopted by 25 states and more than 450,000 copies are now in use in the nation's schools.

"Insurance companies have made possible practically all of the graduate research fellowships in the field of safety education," Dr. Stack said. Eighty-five per cent of the doctoral studies carried on in all universities are the result of assistance by the companies.



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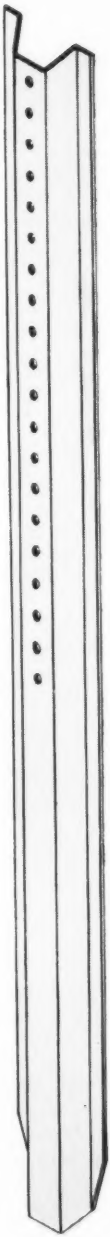

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Activities . . . .

HONOR HOFFMAN

Paul G. Hoffman, Honorary Member, ITE, was honored recently by the Society of Automotive Engineers as the Beecroft Memorial Lecturer for 1947 for his contribution to traffic safety. The award carries with it the responsibility of delivering a lecture on traffic safety before members and guests of a Section of the SAE.

In his lecture Mr. Hoffman gave a review and forecast of highway safety, presenting a challenge in the assertion that America's highway death toll must be cut in half during the next 20 years in the face of a 50 per cent increase in motor travel. The 1947 Beecroft Memorial Lecture was delivered before members and guests of the Chicago Section of the SAE in October.

Mr. Hoffman is the first recipient of the award which is to be presented annually for 10 years under terms of a $2,500 bequest by the late David Beecroft, a past president of the SAE, which provides for the citation and an honorarium of $250 to each Memorial Lecturer. Upon Mr. Hoffman's request, this year's honorarium was turned over to the Automotive Safety Foundation.

SECRETARY'S COLUMN

Congratulations are in order to the *second* Student Chapter in the history of the Institute. By special letter ballot, the Board of Direction approved the activation of a chapter of 22 students at the University of Illinois (Professor C. C. Wiley, ITE, faculty advisor) . . . . The Board of Direction, at its next scheduled meeting (December 5, 1947) will review several important policy matters relating to Institute affairs. Included on the agenda is the matter of professional registration of traffic engineers, a subject of vital concern to all practicing traffic engineers. Some State Registration Boards have issued licenses to ITE members as Registered Traffic Engineers (example, Earl J. Reeder in the State of Florida—November issue, T.E. magazine), but a majority of State Boards refuse to recognize other than Civil or other engineering training and experience. From a few reports received, it is believed that this failure to recognize our profession is primarily due to a complete lack of understanding of the *engineering* aspects of our profession. It is our hope that a workable plan for correcting this deficiency in national recognition will be forthcoming in the near future. . . . . As reported by your Executive Secretary at the recent annual meeting, we are procuring an addressograph machine for increased economy of operation and for more efficient (we hope) handling of mail to our members and subscribers. In a short time we expect to have

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all of the required changes of address on new plates. The addition of this machine will also materially increase our mailing list to all Federal, State, Municipal and private agencies who are interested in receiving copies of our publications, thereby giving us added national recognition and prestige. . . . . It seems that our profession is slowly rising to a peak in *demand* for qualified traffic engineers that far exceeds the present *supply*. The records here reveal many position vacancies that are becoming stagnated. Confidential lists of members seeking new positions are constantly being forwarded upon request, contacts are made, but jobs are not being filled. Primary reasons seem to revolve around inadequate salaries or unwillingness on the part of prospective candidates to seek new housing facilities. Perhaps more Student Chapters and more Junior members may be the answer, and eventually balance this serious lack of personnel. We hope this solution portends before new Traffic Engineering departments are cancelled or before positions are filled by *unqualified* personnel. . . . . Since no other opportunity will afford, your Executive Secretary extends to each member of the Institute and to each subscriber of the magazine sincere greetings for the holiday season.

ROBERT S. HOLMES

I T E PERSONALS

JOHN GIBALA (Mem.) assisted the City of Montreal in a parking survey completed with the publication of a report last October.

The Washington Daily News recently quoted the following from **WALLACE BRAUN**, (Mem.) in connection with a citizen's suggestion for a "walk" light with every traffic signal.

"At most lights special pedestrian signals are not necessary and their usefulness would not justify the expense. There's a law of diminishing returns which affects regulated traffic flow. The more complicated a signal system gets, the less effective it becomes.

"If both motorists and pedestrians would obey the signals and regulations we have, traffic hazard would be drastically cut. For instance, there's a law giving the pedestrian the right-of-way crossing with a light. Of course, we all know that some drivers bull their way through the pedestrian walkways. Unfortunately, no system of lights will safeguard the public against law violators."

W. GRAHAM COLE (Mem.) has recently undergone an operation and, as of last report, was convalescing satisfactorily.

The **WILBUR SMITHS** are the parents of a new daughter, born November 20.

HENRY BARNES (Assoc.), for a number of years Traffic Engineer of Flint, Michigan, will soon become the first traffic engineer for the City of Denver. Mr. Barnes will take up his new duties on December 1.

A short letter to the Managing Editor from **PETE STUPKA** (Mem.) in Japan, finds Pete well, happy and busy in his new job as Municipal Traffic Engineer, Civil Affairs Division, with the occupation forces. Pete reports that he and Charles Beckenbach (Inactive) see each other occasionally. Pete's official address is CTS-GHQ-SCAP, APO 500, c/o Postmaster, San Francisco, California.

YEARBOOK CHANGES

Eugene A. Barton, 1813 St. Paul, Baltimore 3, Maryland.
Paul Plutae, 4141 North 23rd Ave., Phoenix, Arizona.
Major M. Belkin, Nickels-Hensley & Associates, 1108 Cadillac Drive, SE, Grand Rapids 6, Michigan.
John E. Upham, Airport Engr., Dept. of Commerce, Civ. Aeronautics Administration, Airport Division, Washington, D. C.
John F. Gallagher, "Middle House" Wissinoming Street, Torresdale, Philadelphia 14, Pa.
Richard Gallagher, Traffic Engineer & Traffic Planner, 620 East Main Street, Ventura, California.
Thomas P. Walbert, 23 Second Avenue, NE, Atlanta 6, Georgia.
Henry K. Evans, Staff Engineer, DeLeuw-Cather Company, c/o City Planning Commission, 100 Larkin Street, San Francisco, California.
Maynard Bebee, R.F.D. 4, Troy, New York.
William E. Billings, 59 Thackeray Road, Wellesley Hills, 81, Massachusetts.
John J. Dobelek, Assoc. Traffic Eng., Traffic Engr. Bureau, 112 East Jefferson Street, Detroit 26, Michigan.
Ross C. Harger, Assoc. Traffic Engineer, Traffic Engineering Bureau, 112 East Jefferson Street, Detroit 26, Michigan.
Russell E. Harrison, Sr. Asst. Traffic Engr., Traffic Engr. Bureau, 112 East Jefferson Street, Detroit 26, Michigan.
Lloyd B. Reid, Traffic Engineer, 112 East Jefferson Street, Detroit 26, Michigan.
T. Tarson Wiley, Asst. City Traffic Engineer, Traffic Engr. Bureau, 112 East Jefferson Street, Detroit 26, Michigan.

The Board of Direction has set the 19th Annual Meeting of the Institute for October 11, 12 and 13, 1948, in Philadelphia.

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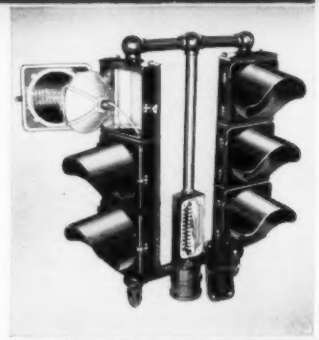

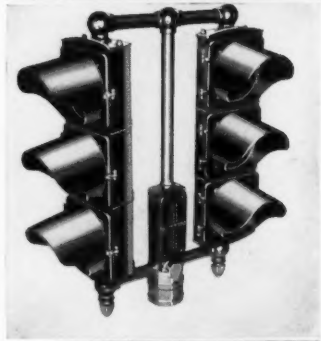

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SECTION NEWS

NEW ENGLAND SECTION

At a meeting of the newly formed New England Section of the Institute of Traffic Engineers held in New Haven, October 22, the following officers were elected for the forthcoming year:

Earle W. Osterhoudt, Traffic Engineer, Connecticut State Highway Department, President; William E. Billings, Director, Bureau of Traffic Safety, Liberty Mutual Insurance Company, Boston, Mass., Vice-President; Charles S. LeCraw, Jr., Resident Traffic Engineer of the Eno Foundation, Westport, Connecticut, Secretary-Treasurer.

Aims of the New England Section are to further the objectives of the Institute, to foster closer association of institute members in the six-state group, and to encourage members to prepare and discuss papers. Also it is proposed to hold conferences and to establish matters of policy. The study of traffic engineering in the Section's locality and plans to cooperate with other engineering groups on matters of common interest will be in the agenda of future meetings.

At the New Haven meeting, Robert S. Holmes, Executive Secretary of the Institute of Traffic Engineers, Strathcona Hall, Yale University, announced that the eighteen students doing graduate work in traffic engineering at Yale's Bureau of Highway Traffic had formed a Student Chapter of the Institute and would participate in the future meetings of the New England Section.

Meetings will be held monthly at various locations throughout New England. Arrangements are being made to have present at these meetings, speakers who are experts in the field of traffic engineering.

Members of the section are:

William E. Billings, Boston, Mass.; Edgar F. Copell, Boston, Mass.; Edward H. Eames, East Norwalk, Conn.; Elroy L. Ericksen, New Haven, Conn.; Robert C. F. Goetz, Saugatuck, Conn.; A. Wallace Gove, Worcester, Mass.; Paul L. Green, East Norwalk, Conn.; Peter P. Hale, New Haven, Conn.; Keneth M. Hoover, Worcester, Mass.; Fred W. Hurd New Haven, Conn.; Charles S. LeCraw, Jr., Saugatuck, Conn.; Phillip S. Mancini, Providence, R. I.; Theodore M. Matson, New Haven, Conn.; Dwight M. McCracken, Boston, Mass.; Theodore T. McCrosky, Boston, Mass.; Neal D. McDowell, Vassalboro, Maine; Dwight T. Myers, Boston, Mass.; Earl W. Osterhoudt, Hartford, Conn.; Ralph A. Reid, West Lynn, Mass.; Charles H. Rex, West Lynn, Mass.; Edmund R. Ricker, New Haven, Conn.; Ralph H. Sawyer, Augusta, Maine; L. T. Scott-Smith, Waterbury, Conn.; William H. Sharp, Hartford, Conn.; Wilbur S. Smith, New Haven, Conn.; Charles J. Tilden, Westport, Conn.; Francis E. Twiss, New Haven, Conn.; Charles M. Upham, Jr., Manchester, Conn.; Robert S. Holmes, Exec. Secy., ITE (member, Ex-officio).

MIDWEST SECTION

The Mid-West Section of the ITE held a meeting on November 13th. There was a round table discussion following dinner. This discussion consisted of some of the members relating to the group specific projects on which they have been working. Don Berry for example, told about the interesting polaroid experiments being conducted at Detroit. This polaroid experiment was on head lights and windshields. Stan Baker gave an interesting talk about the Northwestern Traffic Institute. Later in the evening a social affair was conducted consisting of card playing and refreshments. Those attending were as follows: Mathew Krag, Vic Hofer, William Marston, Richard Fencl, Ralph Michel, William Abbott, Donald Baldwin, Laurence Kane, Matt Sielski, Don Berry, Leo Wilkie, Ralph Gross, Peter Page and Stan Baker.

WASHINGTON SECTION

The main feature of the October 29 meeting of the section, held in the Fairfax Hotel, was an interesting debate on the subject, 'Are Public Subsidies Necessary to Provide off-street Parking?" The affirmative team was ably lead by Dr. David R. Levin, U. S. Public Roads Administration, assisted by Robert H. Burrage. Burton W. Marsh was the captain and main speaker for the negative and was assisted by Harold Hammond and LeVerne Johnson.

Thirty-five members and guests were present, guests including a number of leading business and civic leaders of Washington who were issued special invitations.

In the short business meeting which preceded the debate the section voted to renew its membership in the District of Columbia Council of Engineering and Architectural Societies, and heard a brief report on the progress of the D. C. Engineers' license law. Speakers were introduced by program chairman, Gordon Gravelle.

YALE STUDENT CHAPTER

William Froehlich was elected president of the Yale Student Chapter which was formed last month. Willard Armstrong was selected vice-president and Albert Forde, secretary-treasurer. Members of the chapter are: Willard H. Armstrong, Asst. Traffic Engineer, Div. of Traffic and Safety, Ohio Dept. of Highways; Benedict G. Barkan, Junior Planning Asst., City Planning Board, Boston, Mass.; Gerald R. Cysewski, Bridge Design Engineer, Dept. of Highways, State of Washington; William S. Derrick, Asst. Traffic Engineer, Traffic Engineering Section, Georgia State Highway Dept.; Albert L. Forde, Designing Engineer, Stearns-Roger Mfg. Co., Manitou Springs, Colorado; W. R. B. Froehlich, Graduate Student, Dept. of City Planning, Mass. Institute of Technology; Luis Gonzalez-Soler, Civil Engineer, Div. of Survey and Design, Dept. of the Interior, Puerto Rico; John T. Hanna, Student, Virginia Polytechnic Institute; Jack Hart, Student, University of Nebraska; Jack A. Hutter, Student, Cornell University; Francis T. Maloney, Jr. Highway Engineer, Conn. Highway Department; Cooper McEachern, Asst. Engineer, Transport and Statistics Section, South Carolina State Highway Dept.; Charles J. Murphy, Traffic Engineer, Baltimore Police Dept., Maryland; Morton Raff, Mathematician, Naval Ordnance Laboratory, Washington, D. C.; Edward C. Sosman, Statistical Dept., American Transit Association, New York, N. Y.; Gordon S. Spencer, Jr. Highway Engineer, Conn. Highway Department; William T. Taylor, Jr., Asst. to Unit Head, Transportation Statistical Unit, Traffic and Planning Section, Louisiana Dept. of Highways; Robert M. Williston, Acting Traffic Engineer, Conn. Highway Dept.

JOINT REPORT IS WORK OF IACP, ITE

When should a school intersection have a traffic officer on duty to supervise crossings?

A committee of police chiefs and traffic engineers attempts to answer this and related questions in a report entitled "Warrants for Traffic Officers at School Intersections". The report was written by a joint committee of the International Association of Chiefs of Police and the *Institute of Traffic Engineers.*

On the basis of conclusions reached concerning the duties of police at school intersections, and in the light of observations, experience and opinions of committee members and others consulted, specific warrants for assignments and use were drawn up.

According to the report, an officer usually is warranted at a school crossing when four conditions are fulfilled:

1. When adequate natural gaps in traffic for crossing on foot are not sufficiently frequent for safety.

2. When the total cost of creating adequate gaps in traffic cannot be done more economically by properly designed traffic signals, by school employes or others especially deputized for this purpose.

3. When no other intersection in the community exits and is known where police control of traffic would protect children at a lower cost per child.

4. When the number of vehicles per hour in both directions on the street while it is being crossed multiplied by the number of children crossing on their way to or from school exceeds 30,000.

The report points out that traffic officers are not warranted at school crossings to guard children against their own carelessness or to train them to cross safely; these are not police functions. However, if officers are assigned to school crossing duty they should cooperate in guarding and training children, especially the very young.

Committee members say there is inclination to assign police officers to school crossings on the part of all concerned.

"Unquestionably there are places where it is quite necessary," the report states, "but it is equally true that there is a limit beyond which it is unwise for police departments to attempt to supply this service. A physical limit is reached at the point where men are simply unavailable to meet the demands, but the real problem is one of establishing sensible warrants for this activity which will help to utilize available police strength to the best advantage of the entire community.

James Stannard Baker, director of research for the Northwestern University Traffic Institute, is chairman of the committee. Other members are: Chief Hamilton R. Atkinson, Baltimore; Chief E. T. Weatherly, Cincinnati, and Chief John M. Gleason, Greenwich, Conn., all representatives of the International Association of Chiefs of Police, and Mr. Baker, Ralph Michel, traffic signal engineer, Chicago; Richard G. Fencl, Sr., traffic engineer, Chicago Park District, and William C. Brandes, traffic engineer, Dallas, all of the *Institute of Traffic Engineers.*

Copies of the full report may be obtained by writing to the IACP Traffic Division, 1704 Judson Avenue, Evanston, Ill.

ON THE SHELF

According to the U. S. Chamber of Commerce, "learning to live with the motor vehicle isn't the simple matter it might appear." In a recently-published 37-page booklet entitled "Making Better Use of Today's Streets" the Chamber pointed out that modern facilities such as the dial telephone, electric refrigerator and lifetime pen impose no problems because they don't move around. But not so the auto and truck "which jam the streets, require traffic lights or cause owners to be hailed into court for parking by fireplugs."

Explaining that "city living is built around the motor vehicle", the Chamber warned that too many municipal delays and annoyances are causing the motorist "to detour to greener appearing pastures offered by outlying business centers." Such detours, the publication added, can cause established business and industry, even a whole city, to suffer.

The Chamber declared that any city which attempts a traffic improvement program should give important consideration to surface transit, "whether by busses, trackless trolleys or street cars." These public transit vehicles, the organization stated, which carry large numbers of people to shopping centers also occupy "sizeable portions of the traffic streams." The Chamber asserted, "When good public transportation is provided, customers will come. Good mass transportation depends upon two things—first, progressive management which provides the best possible service, and second, a favorable business climate, including street facilities and traffic controls which enable transit companies to maintain schedules and provide faster service."

As an example of how a city can accomplish "good public transportation" the Chamber of Commerce cited a device used in Milwaukee. Traffic flows freely there because "street cars load at the corners but trackless trolleys and buses load mid-block". The city further eliminated tie-ups by banning curb parking and left turns, the report added.

Demonstrating again that a combination of engineering, education and enforcement in meeting traffic problems can appreciably reduce accident frequency, a case study telling how pedestrian deaths were cut one-third in South Bend, Ind., has been outlined in a bulletin from the National Conservation Bureau.

The study is the eighty-fifth of a series called "Getting Results Through Traffic Engineering" released by the Bureau. Actual examples of reduction in traffic accidents and congestion through improved traffic control methods are submitted by engineers and city officials and redistributed by the Bureau to cities throughout the nation.

In the South Bend incident, a special study revealed that 61 pedestrians had been killed during the years 1934-1939. These deaths represented 53 per cent of all traffic fatalities in South Bend during that period. The study also showed that (1) nearly half (47 per cent) of the pedestrians in the downtown area crossed against a red traffic signal, (2) turning motorists did not yield right-of-way to pedestrians in crosswalks with green signal, (3) the majority of the pedestrians were struck by turning vehicles, (4) the majority were hit while walking with the green signal and (5) 725 pedestrians per hour jaywalked in one sample downtown block.

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Where used as vehicle information signs, such as "NO LEFT TURN" and "ONE WAY", these Crouse-Hinds NEON units give positive information to the motorist 24 hours a day.

Crouse-Hinds NEON Pedestrian Signals and Traffic Signs have been carefully designed to meet the most exacting requirements. The entire housing is made of cast aluminum and the front door is equipped with "Plexiglass" which protects the tubing from the weather. A cast hood increases day-time visibility. The letters are 4½" high, all red or a red-green combination. These units are available in both one-line and two-line types. They can be mounted like a conventional traffic signal ... on top of a post, on bracket arms, on a span wire, or on a mast arm.

Write for descriptive circular, Type TNO. It contains full details and catalog listings of the 14 variations that are regularly furnished.

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Personalities . . . .

This is the seventh in a series of articles about Institute Members.

If the history of highway transportation progress in the United States during the last half-century was to be collected in one volume, M. O. Eldridge's name would appear in every chapter.

Photograph by Fabian Bachrach

M. O., as he is known to his many friends, first came to Washington, D. C., in 1894 to take a position as "expert tracer" in the Office of Road Inquiries, an early predecessor of the present U. S. Public Roads Administration. He was one of three employees and second in command.

A sum of $10,000 had been appropriated for the study of roads. M. O., with a $60-per-month salary, traveled throughout the country personally supervising the construction of 31 stretches of "sample roads". Those early travels served only to convince him more firmly that national prosperity would grow as the people emerged from the mud, and he believed that the federal government should lead the way.

Mr. Eldridge convinced Representative W. P. Brownlow, from his home district in Tennessee of the merit of federal participation in highway construction, who suggested that M. O. and his chief, Martin Dodge, write the

(See ELDRIDGE *on page 142)*

Nat Cherniack has been on the staff of the Port of New York Authority for the past 24 years, and is one of the Institute's pioneers specializing in highway transportation and related problems. Among his pioneering activities was his early work as a highway location engineer. He was one of the first to recognize that origin-destination studies were the most logical methods for locating highways in accordance with traffic needs.

Mr. Cherniack was educated at the Massachusetts Institute of Technology, where he received a Bachelor of Science degree in Civil Engineering Administration, and New York University, from which he was granted a master's degree in Business Administration. Throughout the years he has maintained his contacts with educational institutions. He is a firm believer in high technical training standards, and has since 1925, served as a lecturer on transportation problems at Columbia University, Rutgers, City College of New York, Harvard and Yale Universities. He served for 12 years as a substitute lecturer at the Columbia University School of Business on "Marketing and Terminal Handling of Perishable Foods in the New York Market".

In addition to his academic pursuits,

(See CHERNIACK *on page 142)*

(CHERNIACK, *Cont. from page 141*) he has served as a special consultant to such groups as the New York City Tunnel Authority, the Louisville Area Development Association, and the consulting firms of Parsons, Brinkerhoff, Hogan and MacDonald, Edwards & Kelcey, Engineers and De Leuw Cather and Company.

Nat's title at the Port Authority is "Economist". His duties include economic studies of self-liquidating vehicular toll bridges and tunnels such as the George Washington Bridge, the Lincoln Tunnel and freight and passenger terminal facilities including the Port Authority's Union Inland Railroad Freight Terminal on Manhattan, and the new Union Truck Terminals now under construction.

Other traffic and transportation consulting projects in which Nat has participated include the Queens-Midtown and the Battery-Hamilton Avenue vehicular toll tunnels in New York, Baltimore's proposed expressway plans, the Chesapeake Bay Ferry System and the proposed union truck terminals in Louisville and Atlanta.

Mr. Cherniack's published contributions in the field are numerous. Suffice to say that the Institute, the Highway Research Board, the A.S.C.E., and various other organizations have furthered their work in highway transportation through noteworthy contributions from him. One of his most recent and highly thoughtful works is his treatise on zoning as it relates to the municipal parking and terminal problem.

In addition to the Institute, Nat is a member of the American Society of Civil Engineers, the Society of Terminal Engineers, of which he is president, and the American Statistical Association.

(ELDRIDGE, *Cont. from page 141*) idea into a bill. Mr. Brownlow introduced it into a disapproving Congress, and thus died the first federal aid highway legislation—in 1902.

Undaunted, Mr. Eldridge directed, beginning the following year, a publicity campaign in behalf of his cause with funds provided by a pioneer executive of the American Automobile Association, the A.A.A. having been founded only a year before in 1902. According to the record, Mr. Eldridge was "summarily dismissed" for his outside activities in promoting federal aid for highways. According to M. O., with an amused chuckle, "I was fired." He was later reinstated but he lost his rank as a second in command at the Office of Road Inquiries and, hence, his chance to become its chief upon Mr. Dodge's retirement—a martyr to a cause which became a national policy in 1916.

During the years between 1902 and 1919 Mr. Eldridge directed the first road mileage census in the United States in 1904, directed field surveys and studies on management, administration and traffic.

In 1919 he became legislative secretary for the American Automobile Association. In the words of an early motoring magazine, "What was more natural than that Amos Batchelder . . . when he wanted a man for legislative secretary for the A.A.A. should try for M. O., who knew the game better than anybody in the world?" In 1921, Mr. Eldridge became General Manager of the A.A.A.

In 1925 he became the first director of vehicles and traffic for the District of Columbia, and his many accomplishments as director and assistant director are well known to Washingtonians. Last year, at the age of 73, he retired, as he puts it, "to whittle". But any who know M. O. know he doesn't "just whittle". He is active in the D. C. Commissioner's Advisory Council, is a Mason and a Shriner and seldom misses a Washington Section, ITE meeting. The Section's December,

1946, meeting was dedicated to M. O.'s honor.

Space here does not permit listing the many published contributions he has made in the highway transportation field during the past half-century.

Among his hobbies are hunting and fishing, and he is a photographer of no small note.

REPORT AVAILABLE

A complete record of the Businessmen's Conference on Urban Problems, held by the National Chamber on September 11 and 12, 1947, is now available.

Given the title, "Your City Is Your Business", this 224-page book is full of practical suggestions for attacking serious problems now plaguing so many of our communities, large and small. It contains the complete text of all prepared addresses and a full report of the question-and-answer session of the four discussion panels dealing, respectively, with Relations of City Planning to Community Development, Traffic Congestion, Off-Street Parking, and Rebuilding Lighted Areas.

Over thirty business leaders, technical experts, and others with direct experience in meeting municipal problems participated in the panel discussions and contributed many valuable ideas and suggestions. The result might be termed a textbook for business and civic leaders interested in improving conditions in their communities.

Complimentary copies of "Your City Is Your Business" will be sent to all who registered at the Conference, and, on request, to all chamber of commerce and trade association members. Additional copies are available at $1.00 for single copies, 85 cents each for orders of from two to ten copies, 70 cents each for bulk orders of more than ten copies.

The American Public Works Association concluded its 53rd Annual Congress in Jacksonville, Florida, in October, by adopting several important resolutions as follows:

PROGRAM OF TRAFFIC RELIEF

Whereas, Traffic congestion and parking conditions are becoming intolerable in most American cities, and

Whereas, Property values, consequently are declining and therefore tax receipts of municipalities are falling off, and

Whereas, The building of modern urban expressways to relieve these conditions is still some time in the future, and

Whereas, Traffic accidents, delays, and blight are increasingly threatening the social and economic welfare of our cities, now therefore be it

Resolved, That the members of the American Public Works Association asembled at their 53rd annual meeting in Jacksonville, Florida, October 8, 1947, dedicate themselves to a vigorous program of traffic relief, including the planning of modern urban expressways, the development of adequate off-street parking facilities, and maximum effective use of existing streets; and be it further

Resolved, That in attacking this most serious of municipal problems, sound and proven traffic engineering techniques be applied, and an active program of public education be developed to insure support of adequate measures.

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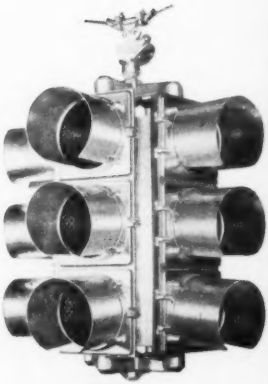

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